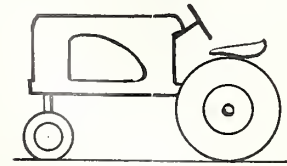
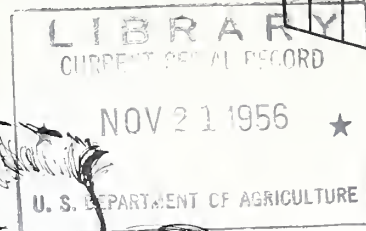
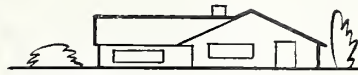
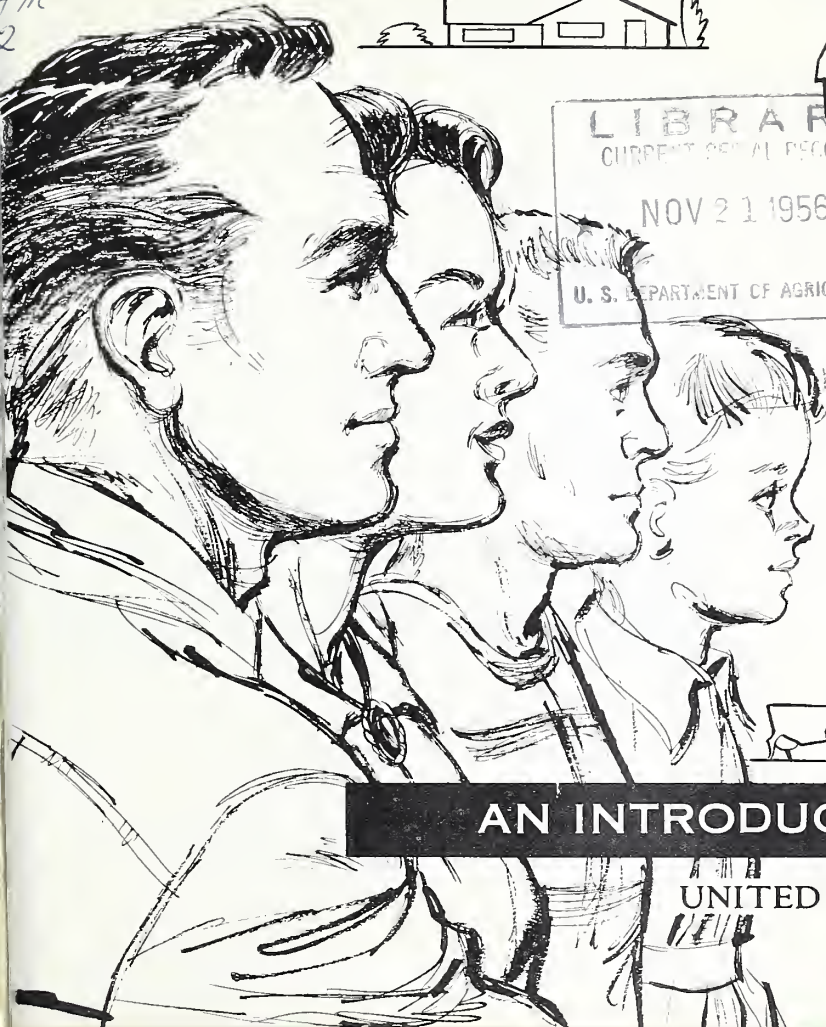


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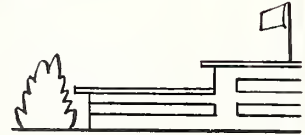
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Miscellaneous Publication No. 720



American Farming



AN INTRODUCTION FOR YOUNG PEOPLE

UNITED STATES DEPARTMENT OF AGRICULTURE

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American farm country. Crops growing in long strips make a beautiful design on the earth. Notice the neat farmsteads, each with its own grove of shade trees.

IA.-2490

This booklet is written for school students who want to know more about American agriculture.

American Farming . . . An Introduction for Young People

FARMERS AND THE REST OF US

Most of us live in or near a city. We study in city or suburban schools. We earn our living in the city, and we look to it for most of our recreation. We hardly ever think about the job of growing the food we eat and the fiber that is used in our clothes and homes. Yet the people who do this job—the farm families of America—help every one of us to a better life.

They produce the bacon we eat at breakfast, the apple in our lunchbox, the cotton in the shirt we wear, the turkey on our holiday table. They do mankind's primary work—taking care of animals and cultivating the earth—so that all of us have abundant food and clothing.

Because American farmers do their job so well, the rest of us can manufacture autos and furniture, practice medicine, fly airplanes, design buildings, teach school, and do all the other varied work of the Nation.

What would it mean to you if our farmers worked the land with a wooden stick and ill-fed oxen? They could

scarcely raise enough food and fiber for their own families. Our big-city, industrial life would not be possible. Few young people could go to school very long. Every "hand" would be needed in the fields to help raise the extra bit of food that meant the yearly victory over starvation.

But our farmers don't work the land with wooden sticks and oxen. How do they work? What do you know about farming in modern America? What kind of skill do you think is needed to manage a successful modern farm?

Successful farming is a big job. It calls for great skill and energy and expensive machinery. Above all the farmer has to be an able manager.

You need to think about farming as farm families think about it. For them cattle raising, or dairying, or cotton growing is a way of making a living and a way of life. Their success in producing and selling crops and animals determines the kind of life they will lead—the equipment they will be able to buy—the kind of home they will live in—the amount of education for the children.

AN AMERICAN FARMER

The farmer is many men in one. He has to be a skilled laborer to do all the different jobs on his farm: a mechanic, carpenter, and electrician to repair the machinery and buildings he owns; a manager to make the best use of land, labor and machines; and a good businessman who knows the right time to sell the crops and animals he raises. More than most other Americans, the successful farmer has to be skilled in many kinds of work.

Let's take a look at an American farmer in the Midwest. His life and work will give us an idea of what it means to be a commercial farmer there—a farmer who produces for market.

This farmer owns a 200-acre farm (equal to about one-third of a square mile) which supports him, his wife, and their three children. The family works together in operating the farm. The oldest son, who is 15, helps his father with many jobs, and the younger children also do their share.

He grows corn, oats, soybeans, and hay. He sells some of these crops, and he feeds the rest to hogs and beef cattle. When his animals are ready for market, he sells them through a stockyard or to a packer.

The Tools He Works With

This midwestern farmer uses expensive equipment to work his farm. He has, first of all, his basic power tool, a tractor. The tractor's power is harnessed to all kinds of

other machinery. It pulls the farmer's plow, which turns the soil over; the drill, which plants seed; the cultivator, which loosens the soil; and the corn picker, combine, or hay baler, which harvests his crops. It supplies power to the mechanical loader, which helps the farmer lift heavy loads without physical strain.

This farmer could use another tractor, which his son would be able to drive. On many days he and his son could do twice the work they do now. But the farmer would also like to trade in his old pickup truck on a later model. His present truck needs costly repairs every few months. To buy both the tractor and the truck would cost too much. So he must choose one or the other.

Many of his problems, like this one, are concerned with machinery. He has to pay for it. He has to keep it in

Spreading lime on a field before seeding. Notice the powerful tractor, mechanical workhorse of the modern farmer.

19048



good repair, a big job since some of it is larger and more complicated than an automobile. And he has to know how to use it.

Expensive farm machinery, farm animals, and the supply of food for the animals must be sheltered from the weather. So his farm is made up of buildings of many sizes—a barn and sheds for the animals and machinery and a silo to hold some of the feed for the animals. He has just spent \$1,000 to remodel his barn and put a new roof on it. Although he and his son did most of the work, they had to buy the lumber and hardware.

Weather as a Taskmaster

In one way or another, this farmer is always concerned with the weather. He tries to have adequate buildings to protect his animals and machines from cold and dampness. He hopes for enough rain to moisten his fields, but not too much to flood them. He is anxious about heavy snows that can cut him off from the local town, keep needed supplies from him, and pull down his electric lines.

The farmer plans his work according to the weather. A long winter and short spring cut down the time to prepare fields for planting and to seed them. A rainy, cool summer makes the corn, oats, and hay ripen late. A frost in the spring might kill a crop that is just beginning to grow and force him to do the work of planting over again.

The weather also affects his battle with insects, diseases, and weeds. If he doesn't fight them, weeds can choke out his crop and suck moisture and plant food out of the soil. Insects and worms feed on a crop in all its stages; diseases



A farmer looks sadly at his stunted crop, burnt out by drought. The weather can mean success or failure to farmers.

FCT-75

waste crops and weaken or kill farm animals. Too much rain or too much sun can help weeds, insects, and disease damage or destroy this farmer's crops and animals.

To protect the crops he is raising, the farmer uses several chemicals mixed together, called pesticides, which he sprays or dusts on them. These pesticides destroy insects and disease but do not harm the crops. He needs real skill to use them properly and to know when to use them and which ones to use.

Management in Farming

Machines, well-equipped buildings, and pesticides help this farmer do an efficient job. But they also greatly increase the cost of modern farming. In mid-1955 a medium-size tractor cost about \$2,000, a corn picker \$1,000, a small concrete silo about \$1,700. Gasoline for the tractor costs him about \$200 a year.

The home of this farm family also has modern equipment (such as a refrigerator, a deep freeze, a washing machine) so that the farmer's wife can work efficiently and use up-to-date techniques in managing her home.

She is her husband's partner in the farm business. Her basic job is keeping the home and caring for the children. But she also has important farm responsibilities. For example, she tries to keep the small flock of chickens healthy and she tends the farm garden. One of the many jobs of this farm wife is helping with the farm records, which fill a small filing cabinet.

The farmer and his wife must manage their economic resources—land, machines, buildings, livestock, the work they do—so that they will make enough money to pay their high expenses and still have money left over for food they can't raise, clothes, furniture, and education. Their basic problem is to raise enough of the kind of food people want in order to pay bills for machinery, gasoline, electricity, pesticides, and all the other things they need to operate the farm.

This farmer must decide, as one example, whether to feed the corn he grows to cattle and hogs on his own farm and then sell them or to sell the corn to other farmers for



Farm boys pitch in to help their fathers. Good schooling together with practical work on the farm makes valuable training for later life.

SD-433



Here an American family lives and works. They take pride in their comfortable home and their sturdy, well-kept farm buildings.

S-13227

livestock feed. He has to estimate whether it would cost too much to raise a certain crop on one of his fields, whether the seed and chemicals he would use and the work he would do are worth the crop he would get. The exercises in arithmetic books about buying supplies and selling finished goods are very real to this farmer—and if he doesn't give the right answer, he loses money.

Protecting the Land

He intends to spend his working life on this farm, and one of his children will probably make his life there also. So he thinks a lot about the ability of his farm to produce for 10, 20, or 30 years the food people will buy.

Corn and other grains take vital minerals out of the soil. (Minerals are chemical elements, such as iron, or chemical compounds, such as soil phosphates.) The farmer cares for his field by planting soil-building crops or using animal wastes or factory-made chemicals as fertilizer. Usually he keeps the field in condition to produce crops by using two or three methods together.

He conserves the land in other ways. He breaks the ground for seeding in such a way that rain will not wash the soil downhill. He has built a small dam to keep the creek that runs across his farm from flooding his fields. He takes special care of the farm woods.

Like any good manager, he considers the position of his business, what may happen to it in the near future, and the developments and changes over the next 10 or 20 years. If he doesn't receive more money for the crops and animals he produces than he pays out for the equipment, supplies, and household items he and his family need, he will go out of business. If he doesn't keep up the ability of his fields to produce good crops and healthy animals, his income will fall year after year until the point is reached where he pays out more money than he takes in.

But the work and problems are only part of the picture. This farmer gets great satisfaction from his job and his life. He enjoys handling the tools of farming, experimenting with new techniques, talking about his work with other farmers. The sight of his sleek animals or of his corn ripening under the hot midwestern sun gives him the feeling that he has built something from the earth. He stays in farming because he likes it.

MAJOR U. S. FARM REGIONS



Fruit and
Vegetables

Cattle

Wheat

Dairy

Corn-
Hog

General
farming

Cotton

Tobacco

Irrigated



THIS MAP SHOWS PRINCIPAL CROPS IN THE MAIN U. S. FARMING REGIONS ONLY. FOR MORE INFORMATION READ THE SECTION "THE LAND AND ITS PRODUCTS"

THE LAND AND ITS PRODUCTS

The United States is a huge country. It is made up of different regions, each of which has its own climate, soil, and other natural features. In general, the kind of farming that goes on in a region is determined by these natural resources and by transportation, the nearness of cities, the size of markets.

The map on page 6 of the major farm regions in the United States shows how farming changes from one region to another, and often from one part of a State to another.

Keep in mind that a region is known for the major crop or livestock produced there, but this doesn't mean only one crop or one kind of livestock is produced. A farming region that is known for one crop almost always produces many other farm products.

The Changing Land of Cotton

Let's start with the cotton region. Cotton is the most important field crop of South Carolina, Alabama, Georgia, Mississippi, Arkansas, Louisiana, Tennessee, and Texas. It is also important in several nearby States and in California, one of the main cotton-producing States.

The southeastern cotton region has a long, warm growing season and plenty of rainfall, in most years. Cotton can be picked about 6 months after it is planted. On the smaller farms, people go into the fields and work down row after row of cotton plants, picking the ripe bolls.

On the small farms (5 to 50 acres), the farmer and his

family plant and harvest the cotton. But on the many large farms in the region, sharecroppers or hired laborers do this work. A sharecropper receives a share of the crop for his work but does not own the land. The hired laborer receives a wage.

On many small farms in the cotton region, horses or mules are still used for heavy tasks, like pulling the plow. A common sight on these farms is the owner or tenant guiding a plow that is pulled by one or two mules.

But most of the larger farms in the region, and many of the smaller ones, are equipped with machinery, such as tractors. And on many large farms, machines even pick the cotton.

This machine is picking cotton. Not so many years ago, dozens of workers would have been trudging the rows in this field as they picked the cotton by hand.

S-14955



The cotton region is changing. Southern farmers have always grown crops other than cotton—vegetables, tobacco, fruits, corn, nuts—and raised animals for their own use or sale in the neighboring cities. Peaches have long been an important crop in Georgia and South Carolina, and rice in Louisiana, Arkansas, and Texas.

But in recent years, many farmers in the South have begun to grow more hay and livestock feed to fatten cattle for market or to feed dairy cows or flocks of chickens. The broiler industry in Georgia, for example, is very close to cotton in importance.

Production of cotton does not use almost all the farm resources in the South as it once did.

Tobacco, a Demanding Crop

Most tobacco is grown a little north of the Southeast cotton region. It is the main crop in North Carolina and Kentucky, and in parts of South Carolina, Virginia, and Maryland. Tobacco is grown also in Georgia, Florida, Pennsylvania, Ohio, Connecticut, Massachusetts, and Wisconsin.

Tobacco requires close attention. The fields are usually fertilized carefully. The growing crop needs a great deal of hand labor. Because tobacco growing is so difficult, one man and his family can work only a small amount of land. The average family plants less than 4 acres in tobacco. But many big farms in the tobacco region are worked by several share tenant farmers.

Curing tobacco is an important part of farmers' work in this region. After the leaves of the plant are picked or

the whole plant is cut, they are dried out by air or fire in heated barns. The area is dotted with these curing barns in which the tobacco hangs to dry.

Some tobacco farmers plant other cash crops—crops they sell instead of using on the farm. Most of them grow vegetables and raise a few meat animals for their own tables, and they feed their work animals with hay grown on their own places. And many farmers in the tobacco-growing States do not plant this crop. In Kentucky, for example, which is known all over the world for its tobacco, dairying and cattle raising bring farmers almost as much income.

A young couple looks over the farm. Many crops are grown on this pleasant farmstead in the eastern hills.

FCA 5779



Highland Farming

The highland region of general farming includes part of Pennsylvania, Maryland, West Virginia, Virginia, North Carolina, Tennessee, Kentucky, Missouri, and Arkansas.

Many farms in the region are small and at a distance from large cities. The farmer and his family own and work their farms with little help from hired labor. They grow vegetables and feed grains, keep dairy cows, and raise beef cattle and hogs. Woodlands are often an important part of these farms.

Fine dairy animals need skilled handling and constant care. Well-made buildings help the dairy farmer do a good job.

N-6052



In recent years, some of the farmers in the region have gone to work in the industries that have been established there. They work a 25- to 40-hour week in coal mines, sawmills, or textile plants and farm in their off hours.

Farm life in this region, as in some others, is changing. Electricity, automobiles and roads, and new markets are pointing the way to new kinds of farming. Industry is drawing some of the people from farms, introducing them to city work, and adding to their incomes.

A Seven-Day-a-Week Job

The Northeast, the Lake States, and parts of the Far West make up the dairy regions. Much of the milk, butter, and cheese we use is produced there. These regions include most of Wisconsin, large areas of Pennsylvania, Maryland, New York, Connecticut, Massachusetts, Rhode Island, Vermont, and Minnesota, and smaller areas of Virginia, Maine, Michigan, Ohio, Illinois, and in the West, Washington, Oregon, and California.

Dairying is the main farmwork for two reasons: In parts of this area, the summers are too short and the land is not suited to growing crops other than hay and pasture grasses, which cows can eat. Second, these regions have many big cities in them or nearby—New York, Chicago, Boston, Detroit, Los Angeles. These cities make good markets for fluid milk and other dairy products.

Dairy farming is a 7-day-a-week job. Cows have to be milked at least twice a day, marketing schedules have to be met, equipment has to be carefully cleaned and milk cooled.



Above, neat farm buildings and a lush cornfield. They are found throughout the corn-hog region of the Midwest. Below, combines on wheat fields west of the Mississippi River. They harvest, thresh, and clean the grain while moving over the field.

5385, NEB.-1752



Besides, there are many special jobs—raising calves, nursing sick animals, caring for fields, repairing equipment.

The average dairy farm is owned and operated by one family with the help, sometimes, of one or two hired men. The farmer and his family have a big stake in their farm. They have invested almost all their resources in the expensive animals, equipment, and buildings needed for successful dairy farming.

The dairy region, of course, is not the only one with dairy cows. Much milk, butter, and cheese are produced outside it. Farmers in Texas received more than 131 million dollars for dairy products in 1955.

The Fertile Land of Corn and Hogs

West and south of the main dairy region, in the section of the Nation covered by part of Ohio, Indiana, Illinois, Wisconsin, Minnesota, Kansas, Nebraska, Missouri, and South Dakota, and all of Iowa, is the Corn Belt.

Farmers here specialize in growing corn and other grains, which they feed to hogs, cattle, sheep, and chickens. The average farm is made up of fields of corn, oats, soybeans, hay, and sometimes wheat. When a farmer in the region doesn't feed all the grain he grows to animals on his own place, he sells it for cash. Farm families also grow some of the food for their tables.

Soil in the Corn Belt is deep and fertile. Rain is usually plentiful and summers are hot.

Most farm families own the farms they work. Their work is heaviest from early spring to mid-fall. During this period they are planting, cultivating, and harvesting

their many field crops. They use machines to prepare the ground for planting, put in the seeds, harvest the crop, carry it, and even feed it to animals. Most of the farms are of moderate size—100 to 400 acres. They are small enough to be operated by a farm family with the aid of these machines.

In 1954 Iowa had one-third more tractors than farms. What does this tell you about farming there?

Wind, Sun, and Wheat Fields

Wheat grows in many States, but one region to the west of the Corn Belt is noted for the amount of wheat produced there. The wheat region includes North Dakota, parts of South Dakota, Montana, Nebraska, Kansas, Oklahoma, Texas, Washington, Oregon, Colorado, and Idaho. This region has two sections: The spring wheat area in the north and the winter wheat area in the south. In the first, wheat is planted in the spring and harvested in late summer and early fall; in the second, it is planted in the fall and harvested in the summer.

The driest parts of the region go through long periods with no rain at all. Strong winds often erode the unprotected soil. Few crops except wheat and sorghum will grow in the drier sections. Elsewhere in the region barley and oats grow well. Farmers in both the north and the south feed livestock. In Kansas, the heart of the winter wheat area, they received more money from the sale of livestock and its products than from the sale of wheat in 1955.

Many farms in the region are big, sometimes over a

thousand acres. They are worked by big machines, such as engine-driven combines and four-plow tractors.

The people there have to endure bitterly cold winters and often dry, hot, and dusty summers. More than most American farmers, they are at the mercy of the weather, which can dry up their crop or blow away their soil.

The Western Empire of Cattle and Sheep

Rangelands cover parts of all these States: Texas, New Mexico, Arizona, Utah, Nevada, California, Oregon, Washington, Wyoming, Colorado, Montana, Idaho, Nebraska, South Dakota, and North Dakota.

The rangeland region is one of vast grasslands and sagebrush in the plains, and meadows in the higher land, where the forests grow. Cattle and sheep raised in the region feed on grass, herbs, and shrubs.

Ranchers own most of the better grazing lands. But the Federal Government owns a large part of the rugged highlands and deserts. Livestock raisers may graze cattle and sheep on these Government lands by paying a fee and getting a permit.

Cattle and sheep raising in the West demands physical stamina, business sense, and skill in range and animal management. Cowboys watch over the feeding cattle and herd them to the areas where they are branded and treated for disease. Shepherders keep a constant watch on their flocks, often in isolated places. The animals are shipped from the ranges to farms in other regions for fattening or to meat-marketing centers in the West and Midwest.

The rangeland region is one of open spaces. Neighbors

are usually far from each other. The cowboy's job demands hard physical work and, for most, it is lonely work.

Where Water Is Brought to Land

Some areas in the dry West are irrigated with water brought to them by man. This helps them produce good crops. In 1950 more than 21 million acres of land in 17 Western States were being farmed by irrigation. Because this land gets little rain and a great deal of baking sun, water must be brought to it.

Land is irrigated in different ways: Water flows in man-made channels from streams or from reservoirs where it

Beef cattle graze on a western range. Cattle and sheep raising in this region demands stamina, skill, and business sense.

390134



has been stored. It is pumped from deep in the earth to the surface where it is put on the crops. Or it is controlled by dams in streams so that farmers will have a constant source to keep their fields moist and fertile.

Farmers who work irrigated land grow many kinds of crops—sugar beets, fruits, vegetables, alfalfa, nuts, grasses, wheat, cotton, seeds for use in other regions—and they sometimes feed cattle.

Farm families own much of this irrigated land—just as in the corn region or the dairy region. But some of it is farmed as a modern factory is operated. A manager supervises the widespread work of a large force of technicians and laborers. They care for complicated irrigation systems; prepare the ground for planting; apply fertilizer; fight weeds, insects, and plant diseases with chemicals; and harvest the crops.

East of the Mississippi River, where enough rain usually falls, irrigation farming is being practiced more and more. Some farmers have found that irrigation increases the production of their farms. And it is a source of water for crops if drought hits the region.

Vegetables, Fruit, Rice, and Sugar

Besides the main farming regions, several smaller areas produce special crops.

Florida and California are noted for the oranges, grapefruit, and lemons grown there. Trees that produce these citrus fruits must have year-round attention. They need protection from the cold, and have to be sprayed with pesticides to prevent injury from insects and disease.

Family owners operate some citrus farms; but many are big, factory-type farms in the region of irrigation farming.

Plants that are made into sugar grow in two areas—sugar beets in the Western and Mountain States and Michigan and Ohio, and sugarcane in southern Louisiana and Florida. Sugar beets are a field crop that calls for much hand labor. Sugarcane grows in the bottom lands along the Mississippi River and in Florida. It also requires hard labor in cultivating and cutting, but machines now do much of this work.

Fruit and vegetable growing takes place in almost every region, but certain areas specialize in this kind of farming. Florida and parts of the Gulf Coast area produce fruits and vegetables that people in the North can buy fresh in the winter. Apples, pears, and peaches are a main product of some farms in the Great Lakes area, the Pacific Northwest, northern California, the Middle Atlantic area, and upper Virginia. Farmers in South Carolina, North Carolina, Georgia, Alabama, and Arkansas also produce much of this fruit. In the East, along the Virginia, Maryland, New Jersey, and New York coasts, many truck farms grow vegetables for the markets of the big cities. The more important areas of potato production are in Maine, New York, Idaho, and California.

If you travel across the country, you will see the changes in types of farming we've been describing. But many farm activities will be the same. Tractors do the heavy work in Pennsylvania as well as in Oregon. Soil conservation is as important in Mississippi as in New York. You will realize that farmers have similar work and similar problems—no matter what their farms produce.

TO MARKET

Although food, fiber, and tobacco are grown in many different parts of the Nation, almost half the American people live in the Middle Atlantic, New England, and East North Central States. A vast, complex marketing system has come into being to move the farm products grown in one region to the people who live in another. To understand the modern farm job, you also need to know something about marketing.

Farming and marketing are closely tied together. Marketing completes the job the farmer begins—the job of supplying Americans with food, fiber, and tobacco. Farmers specialize in growing these products; businessmen specialize in getting them to consumers in the form they want. In this way, both farmers and businessmen can spend all their time doing the work they know best.

The Farmer Sells His Products

Consumers make up the market for meat, fruits, vegetables, and other products. And most farmers plan their work from year to year on the basis of the kind of market they are likely to find when their crops are ripe or their animals grown.

In this planning, they use the information put out by Government offices on the acreage of crops other farmers intend to plant and the prices buyers are likely to pay in the future. If this information points to a poor market for a certain crop, some farmers may be able to avoid producing it or may be able to produce and market it before large supplies push the price down.

When the time comes to sell their crops, most farmers pay close attention to the market news carried by their newspapers and broadcast over the radio or TV. This news tells them what the food or fiber they produce is selling for at the major trading centers in the Nation and the supplies in the market. This information helps a farmer decide whether to hold his product on the farm and wait for a better price or sell right away. Of course, food that spoils easily cannot be held very long.

To understand how and to whom farmers sell, we have to consider each kind of farm product, just as we considered each farming region to understand the total farming job.

In the wheat region west of the Mississippi, farmers usually haul their wheat to the local grain storage building, called an elevator, where they sell it or store it.

Farmers in the corn-livestock region sell their animals to buyers, who move them to packinghouses in nearby cities; or they send their animals to city markets.

Most dairy farmers in Wisconsin and Minnesota sell fluid milk to plants where cheese, butter, and other dairy foods are made. Dairy farmers in other places sell to organizations that bottle milk and cream for stores and homes.

Vegetable growers near northern cities ship directly to the big produce markets there.

American farms produce hundreds of different products. Methods farmers use to market them are almost as numerous. Let's look at a few of the methods that are used widely.



A bumper wheat crop moves to market—first stop the local grain storage building. As you can see, trucks are also important farm tools.

N-7201

Some farmers market their products through cooperatives. These are organizations they themselves own and operate. In 1953, 7,200 cooperatives were marketing farm products. Many cooperatives also process these products. Processing means putting a product in the form consumers want—for example, cutting up and freezing fruits and vegetables, preparing chickens, or making butter, cheese, and ice cream. Some farmers haul their crops to auctions in nearby towns where buyers bid on them—offer a price they are willing to pay. Some farmers sell their products to local processing plants. In the cotton region, they take their cotton to gins where it is cleaned of seed and baled.

Why doesn't the farmer sell directly to the people in cities who use the food and fiber he grows? Sometimes he does. But most marketing demands so much equipment and know-how that the individual farmer can't manage it. So he usually sells to buyers at his end of the marketing chain or turns his product over to cooperatives. They move the food and fiber he has raised the next step toward the consumer.

These first buyers and handlers of farm products give certain needed services. They gather together a large amount of products to ship. They pay for the transportation and take the risk that the food may spoil or be damaged. And finally they sell to other merchants.

The Next Stage in the Journey

During the second stage in marketing, many business dealings and mechanical operations take place. These include collecting, handling, manufacturing, packaging,



Canned sweetpotatoes go into a pressure vat for processing. It takes a great deal of planning and work before the food grown by the farmer gets to city consumers in a form they can use. 8311

selling, and shipping. At this stage the crops and animals farmers produce begin to move from the local buyer and cooperative toward the grocery store.

The owner of the local grain elevator who buys or handles wheat sends it in railroad cars to a larger storage building, a "terminal elevator." The wheat is held there until the mills can grind it into flour.

The man who buys livestock transports it directly to the plant of the meatpacker or to a terminal market (a large assembly place, called a stockyard, in a nearby city). At the terminal market, employees of the packer look over the animals and offer a price for them. The packer

slaughters the animals and prepares meat for restaurants and stores.

Butter is sold by the creamery to milk companies in towns and cities or to dealers, called wholesalers. These wholesalers have the employees and equipment to place it in corner groceries and supermarkets.

At the big city produce markets, where vegetables and fruits arrive by truck and train, buyers for grocery stores and food processors look over the items on display and come to a sales agreement with the farmer's agent or the salesman for the market. Local buyers of vegetables may sell by telephone to wholesale merchants in cities who buy in carload lots and sell in turn to processors or grocery stores.

Many services are essential if the marketing system is to work well. These include storing, grading, and financing.

Most products are kept in storage sometime in their journey from farmer to consumer. Wheat fills the tall grain elevators of the Midwest. Canned vegetables are stacked in the warehouses of the processors, waiting for shipment to towns and cities. Beef carcasses hang in the storage lockers of wholesale meat markets. By storing food and fiber, marketing people can control the flow to manufacturers and stores.

Farmers, buyers, shippers, processors, and city merchants depend on the inspection and grading services given by Government employees. "Grade A," "Prime," and "US No. 1," for example, tell them the quality and value of the products they are dealing with and the use that can be made of them. The best grade meat animals, grain,

or vegetables bring the highest prices in the marketing centers.

Businessmen dealing in farm products need large amounts of money to pay for the food and fiber they handle and to take care of expenses like rent, wages, oil and gas for their trucks, and taxes. They often get this money on loan from banks, and pay back the loan after they have sold the products they hold. Many businessmen who buy, sell, and process farm products could not operate without this source of credit.

Marketing Everyone Knows About

The retail store stands at the end of the marketing chain that started with the farmer. Here people buy the food, clothing, and tobacco they use. The retail store you know is probably the supermarket or corner grocery where your family buys food.

The manager of a grocery store may get the meat he sells from a wholesale meat market; fresh vegetables in season from a farmers' market nearby where trucks from a vegetable growing area unload; bread and cake from a local bakery; and frozen vegetables from the warehouse of a wholesale market.

At the modern grocery, you can buy almost any kind of food—cleaned, graded, inspected for wholesomeness, and put in packages to save you time and trouble. Here are neat packages of tomatoes and piles of fresh celery; frozen fruit that tastes as though it just came from the farm; shelves of canned goods; and counters of meat which is graded, weighed, wrapped, and ready for the oven.



End of the marketing chain, the vegetable counter in a modern grocery. Fruit growers, poultrymen, and wheat farmers have contributed to the market basket of this housewife.

S-16921

When you go into a well-stocked store like this, do you ever think of the farm planning and work, the transportation over thousands of miles, and the skilled labor in processing factories that make it possible?

The business of buying, selling, and processing farm products is changing all the time. The self-service store is one example of new methods in marketing. Another is the preparation of food dishes in the processing plant so that the housewife has only to heat and serve them.

Cleaning, cooking, or freezing food used to take place hundreds of miles from the farm areas where it was grown. Now a surprising amount of this processing takes place right next to the farmers' fields.

Marketing businesses are taking on more and more of the jobs we have described. Some companies own grocery stores and also the equipment—trucks and warehouses—that allow them to buy directly from canning factories, meatpacking plants, and auctions in farm areas. These companies are both wholesaler and retailer. Their operations span the distance from farmers to the corner store.

Selling to Foreign Peoples

American farmers also sell their products to consumers in foreign countries. As in marketing at home, several people handle food and fiber in one way or another before it gets from the American farmer to the consumer in England, Brazil, Japan, and other countries around the globe. Foreign marketing means added problems of shipping across water and differences in language, custom, regulations, and money.

Foreign markets are important to American agriculture. The income of a cotton, wheat, tobacco, or rice farmer may depend on how much of his product is sold in foreign countries. Except for a short period between the two World Wars, cotton, grains, and tobacco have made up two-thirds of total shipments overseas of American farm products.

People in other countries usually have to pay American dollars for the food, fiber, and tobacco, they get from the

United States. They earn these dollars by selling raw materials, manufactured goods, and food items to Americans, and in several less important ways.

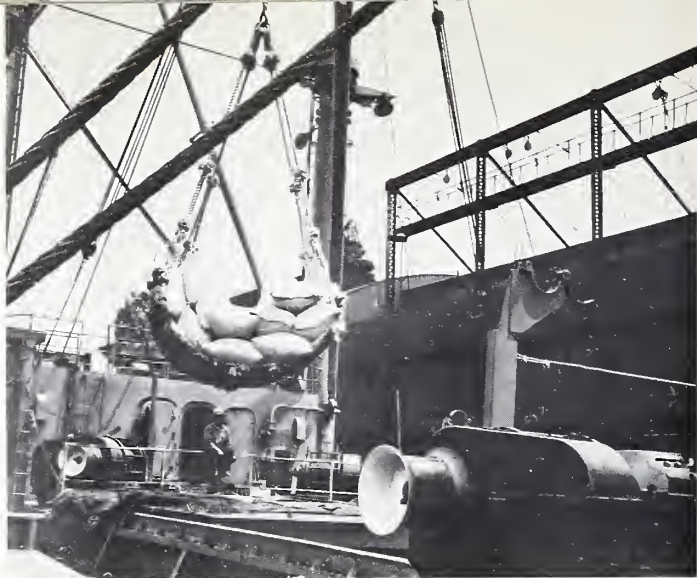
The two key men in the shipment of farm products to other countries are the exporter in this country and the importer abroad, who agree with each other to sell or buy. The exporter may be a large farm operator, a farmer cooperative, a businessman handling the farm product, or an export broker who transacts the business.

The American exporter-shipper takes responsibility for the farm product—apples or wheat or beef—until it arrives at the dock in New York or New Orleans or another United States port and is ready for loading on the ship. At the dock, a forwarding agent takes responsibility for loading the product and for the paper work that allows the exporter to prove he has completed his part of the bargain.

When the ship arrives at the foreign port, the agent of the importer supervises unloading. He also takes charge of the product as it is inspected and taxed by port officers of the foreign government. He then ships the product by rail or truck to the foreign city or manufacturing plant where it will be used.

Better Marketing Helps All of Us

In late 1956, 59 percent of every dollar Americans spent for food went to the people who buy, handle, sell, process, package, and advertise it. The rest of that dollar went to farmers. You can see that the job of bringing us farm products in the form we want and at the right time is a complicated, expensive one. The better this job is done the more time and money both farmers and consumers save.



Sacks of American wheat flour are loaded aboard a ship bound for Europe. The best customers of some farmers are people across the ocean whom they may never see.

N7913

The Federal Government and the States, as well as marketers, make studies all the time to find out what consumers want and to find better ways of doing the jobs that go into marketing farm products. Government and business also try to find new markets in the United States and abroad for the products of our farms and to increase the ways of using these products. Farmers depend on this sales effort. Their customers are also the customers of the businessmen who deal in food, fiber, and tobacco.

THE BIG PROBLEMS

Like city people, farmers are affected by events and conditions they cannot control. They have no control over the weather, for example, or the need in a foreign country for their products, or the income of city workers.

Let's discuss some of these basic conditions, see how they affect farmers and what actions are taken to adjust to them.

You have seen how much equipment is needed to farm successfully. An up-to-date dairy farm of only moderate size can easily be worth \$30,000 in equipment, buildings, livestock, and supplies. An Illinois corn-hog farmer may have \$60,000 or more invested in his farm.

The young man who wants to start farming and the older farmer who wants to make major improvements on his farm must raise large sums of money. Often a young man has to borrow money to buy the farm he wants and the equipment to operate it.

Some farms that are deep in hill country or far out on the plains do not have electricity, telephones, or good roads nearby. The farmer in one of these areas can do little about this. He cannot afford to build asphalt roads or string electric lines or set up telephone poles. Electric or telephone companies cannot bring in the service because these farms are so far apart and so isolated that the companies would lose money. So people on such farms may be without these services through no fault of their own. They need special help in getting electricity, which is so important in modern farming.

The Need for Farm Workers

About 8,000,000 people are working on American farms, and about 1,900,000 of them are hired workers who do not own the land they work. Some farm owners need their help only at certain seasons of the year; others need help all year round.

During the harvesting season in areas where vegetables and fruits are grown, many workers are needed to pick the crops. But when the season ends they can find no other work in the region. The farm owner's problem is to get the workers when he needs them. The worker's problem is to be where the work is and to give his family a decent life even though he has to move from one State to another every few months as new crops ripen.

Neither the owner nor the worker can change the fact that some kinds of work have to be done all at once.

Some people grow up on farms that are too small or wasted to produce enough crops. But they are born on these farms. They often inherit them from their fathers, and they stay on them and farm. They have no other trade except farming, and no money to start over in another place. They see no choice except to keep on farming land that doesn't produce good crops.

About 1,000,000 of our farm families make so little money year after year that they can't buy the supplies, equipment, and animals to help them farm and live better.

Prices Go Up and Down

Many events and the actions of many kinds of people who are not farmers affect the prices of farm products.



The farmer himself has little control over the way prices move.

You know that prices rise and fall. Goods you buy in the store cost more or less one year than they do the next. But, when the price of washing machines, as one example, falls too far, the manufacturer of them is usually able to adjust his production. He makes fewer machines or he makes something else. Also, manufacturers can act quickly when their prices fall too far.

This is not so true in farming for the following reasons: (1) The amount of food and fiber our farms produce depends a great deal on weather and damage done by pests and disease. (2) Farm production comes about after planning and financing that have taken place months, even years, before. (3) There are about 4,700,000 farms in the United States. No single farmer can change very much the supply of food and fiber coming to market by changing his own work.

Even though farmers may get less money for their crops because prices of these crops are falling, prices of the goods and equipment they have to buy may stay the same or rise.

FARMER LEADERSHIP AND FARM AID

High costs, worn-out land, price changes, lack of consumer ability to buy food and fiber have sometimes put farmers at a disadvantage. Since early in the Nation's

Two young men in agriculture. One is a county agricultural extension agent; the other an Army veteran who has returned to farming. They are discussing new farming practices. Young farmers need plenty of skill—and money—to make a success of their work.



Oklahoma farmers listening to a discussion of farm problems. At meetings such as this, farmers can exchange ideas and express their views.

BN-327

history, farm leaders, farmers themselves, and their representatives in Congress and the State legislatures have tried to do something about these and other conditions. Members of the farm community have tried to find ways to change such conditions, and if they could not be changed to help adjust to them.

Farmer organization, technical information, and government services—these have been a vital aid to farmers in good times and bad.

Over the years, farmers have joined together in several organizations that have grown strong and nationwide in membership and influence. The American Farm Bureau

Federation is made up of more than 1,600,000 farm families in its individual units, the county farm bureaus. The National Grange has about 875,000 members. Two hundred thirty-five thousand farm families belong to the Farmers Union. The National Council of Farmer Cooperatives is made up of 122 associations for marketing and buying that serve about 3 million farm families. (Remember, these figures are for 1955.)

These organizations give farmers an opportunity to meet together and discuss their problems and their work. They encourage cooperation and improvements in farming. And they act as agents of farmers in their dealings with other national groups.

Many companies that produce machinery, chemicals, and feeds for farms pay for research to find better manufactured goods that will help farmers in their work. The salesmen and technicians of these companies go into the field to explain new products and machines to farmers. The success of companies that deal regularly with farmers is tied closely to the prosperity of the farm community.

These companies usually advertise in the magazines and newspapers that tell farmers the news of agriculture and describe better ways of doing jobs on the farm. Farm magazines and newspapers are widely read. For some farmers, they are the main source of ideas about better ways of farming.

Just about every farm home has a radio. Television sets are becoming as common in many farm areas as in the city. More farmers than ever depend on them to bring them facts and figures they need to operate successful farms.

Lawmakers from farm areas and both Federal and State government officers have introduced a long list of activities. These activities are an attempt to help farmers meet the big problems they can't cope with working alone. We tell this story on page 23.

DO YOU WANT TO KNOW MORE ABOUT FARMING?

You now have some idea of farming in your country.

If you live in or near a farm area, you know at first hand much of what we have described. But if you live in a city, finding out about farm life is often difficult. A little effort and imagination, however, will reward you with a great deal of information.

The county you live in probably has an agricultural extension agent. He or his associates would be happy to answer your questions. Or you may write directly to the Land-Grant College in your State for information.

Some of the service clubs (like Kiwanis, Rotary, or Lions) have committees that are interested in farm-city relations. And the Chamber of Commerce in your city may have an office that deals with agriculture.

Don't overlook your own junior or senior high school as a source of information on farming. The school library

there will have books on agricultural subjects, encyclopedias and other reference books, for example, and it may carry one or two of the interesting magazines on farming.

Perhaps courses in vocational agriculture are given in your school or in another school in your city. The instructor would be glad to talk with you about farming. You could also talk with your counselor or teachers about your interest in agriculture.

The club, organization, or church group you belong to might be willing to start a program to acquaint its members with farming in the region you live in—that is, if enough of your fellow members are interested. Perhaps you could be the one to organize a farm club (like the language club or the photography club) in your school. There are probably many boys and girls in rural schools who would like to correspond with you, and exchanging letters could be one of the activities of the club.

Think a moment what you can do to learn more about farming. Certainly many ideas will come to you. This little booklet is just an introduction, a starting place. You have to go on from here. Read articles and books on agriculture, visit farms in your region, talk with people who know about farming.

You will begin to see what a fascinating field of knowledge and culture agriculture is. You will see the farmer as a skilled manager combining machines, labor, land, animals, and equipment to fill our basic needs for food and fiber.

Facts and Figures for Reference

GOVERNMENT AGENCIES

Like the agencies in State governments that deal with agriculture, the United States Department of Agriculture was established and has grown in importance to meet the needs of farmers for technical, economic, and educational aid. These services of the Federal Government and the States, together with the services of private organizations, companies, and farm groups, make up a united national effort to help farmers succeed at farming. When farmers do an efficient job, all of us profit.

On June 30, 1955, the Department of Agriculture had about 66,000 employees, most of whom were in the States working with the farm community and a small number of whom were overseas. About 10,000 were in the Washington, D. C., area.

The Department aids American farmers in many ways. For example, it grades some of their products. It lends money to cooperatives to build electric lines to their farms. It puts out booklets to help farmers do a better job. It gathers facts and figures on subjects farmers are interested in.

The Department of Agriculture operates under laws passed by representatives of the people in the Congress of the United States. Most of these laws were written to get something done that the majority of farmers wanted or, at least, that most farmers in certain areas wanted. Each

year the Congress sets aside money from the tax income of the Federal Government so that the Department can do the job Congress wants it to do.

Its officials work closely with officials of State governments. These governments also have agencies with responsibilities in the field of agriculture. Experts paid by State governments inspect food, encourage the growing of better crops and animals, and research on subjects farmers are interested in. They also take care of forests owned by the States and they help farmers conserve soil and water. All the States have Land-Grant Colleges and Universities, established with the help of the Federal Government. They are centers for agricultural research, development, and training.

Helping Farmers Improve Their Work

The agricultural experiment station of a State is a part of the agricultural college and is usually near it. Research on farming, processing, and marketing farm products within the State is done by the experiment station. Both the Federal and State governments provide money for this work. Often experiment stations work together to solve a problem important in a whole region. Much of this research is done in cooperation with the Department of Agriculture.

The *Agricultural Research Service* in the Department is responsible for this cooperation and for distributing Federal funds to the experiment stations.



This is an age of science in farming. The Agricultural Research Service employs trained specialists, such as this scientist at the Beltsville, Md., research center, to find better ways of farming and effective weapons against insects and disease.

N-5961

The Research Service also has its own laboratories and field stations throughout the United States and in several foreign countries, where scientists search for better ways of farming. It conducts programs in farm areas to control diseases and insects that attack plants and animals. This work, too, is done in cooperation with the States. And the Service is responsible for inspecting meat that moves across State borders.

Unless the farmer can find out what new products and techniques the scientist is discovering and use them on his farm, even the best research will do him little good. For this reason, and to give farm families the information they



4-H Club girls practice flower arrangement. These girls are learning that well-kept farm homes are also attractive homes.

N-6928

need to live and work better, Federal, State, and county governments finance and carry on a cooperative system of education called Extension Service.

County extension agents are the local representatives of this service. They are located in every agricultural county in the Nation and in some urban areas. They work with farm men and women and with boys and girls in agricultural, home demonstration, and 4-H Club programs. (4-H Clubs are groups of boys and girls who train for good farming and homemaking by meeting and working together in projects on the farm, in the home, and in the community.)

The *Federal Extension Service* in the Department of Agriculture is in charge of the Federal Government's part of this educational program. In the States the program is administered by State extension directors. They consult with the county governments on appointing and supervising the county extension agents. Farmers and townspeople help the agents plan and conduct the work in the counties.

Another department of the Federal Government, the Department of Health, Education, and Welfare, has charge of the yearly grants of money that go to the States for rural high schools. States match the Federal grants with their own money. This Federal and State money is used to train students in vocational agriculture and home economics. Boys enrolled in vocational agriculture belong to the Future Farmers of America, and girls enrolled in home economics, to the Future Homemakers of America.

Protecting Basic Resources—Land and Forests

Along with research and education, the protection and careful use of the Nation's forests, land, and water resources are a main concern of both the National and the State governments.

The *Forest Service* in the Department of Agriculture has foresters, researchers, and other specialists in forestry stationed throughout most of the Nation. It also has administrators, technicians, and researchers in Washington. The Forest Service cares for the more than 180 million acres of land in national forests. Its experts help protect these wild lands from insects, disease, and fire,

and make sure they are used wisely. They join with State forestry agencies to protect and develop woodlands owned by States, local communities, and private citizens.

Another department of the Federal Government, the Department of the Interior, manages the great national park system—24,000,000 acres—and has charge of certain other land the Federal Government owns totaling about 546,000,000 acres. Half of this other land is in Alaska.

The Department of Agriculture gives technical aid and administers Federal funds to bring about more soil conservation in the Nation. In some of this conservation work, it again joins with the States. Three agencies of the Department have a part:

The *Agricultural Conservation Program Service* is responsible for a program in which the Federal Government shares with farmers and ranchers the cost of conservation on their land. This program helps conserve the Nation's precious land and water. Cost-sharing takes the form of services, material, or money. Local committees, elected by the farmers, supervise the program.

The second, the *Soil Conservation Service*, has experts in all areas of the Nation who help farmers and ranchers in soil conservation districts in the work they are doing to conserve land and water. They aid in the program of the Agricultural Conservation Program Service, and they also work closely with technicians of the Forest Service.

The third, the *Farmers Home Administration*, lends money to farmers to help them conserve and make good use of their soil and water.

The *Bureau of Reclamation* in the Department of Interior does important conservation and reclamation work in supervising the widespread irrigation projects that bring water to many farmers in the West.

Aid for Cooperation and Better Marketing

The *Farmer Cooperative Service* in the Department of Agriculture helps farmer cooperatives improve the work they do in marketing farm products and buying farm supplies. It joins with State colleges and extension services, vocational agricultural teachers, farm groups, and others to bring about more understanding of cooperatives and to help them do their job better.

The *Agricultural Marketing Service* is responsible for a large share of the help that is given by the Federal Government in getting the marketing job done. It reports on the production and prices of crops and livestock, furnishes market news, and helps in many ways to establish and use standards of quantity and quality. It inspects many foods for wholesomeness. It publishes information to aid farmers in changing their production to meet the demands of consumers. The Marketing Service runs the school lunch and milk programs and other programs to increase the use of America's abundant food supplies. One of its most valuable activities is research on the marketing system to find out where improvements can be made. Much of the Marketing Service's work is done in cooperation with the States.

The *Foreign Agricultural Service* in the Department of Agriculture helps our farmers find markets for their products in foreign countries. This agency tells American

traders about opportunities of selling farm products overseas and tries to persuade foreign countries to take more of these products. It also helps with Government programs that make it easier for farmers to sell their food, fiber, and tobacco in foreign countries and reports agriculture and market information about these countries.

Many other agencies of the Federal Government give services that affect the marketing of farm products. They include other agencies of the Department of Agriculture, the *Food and Drug Administration* in the Department of Health, Education, and Welfare, and the *Bureau of the Census* in the Department of Commerce.

The work of the *Commodity Exchange Authority* in the Department of Agriculture is important to the efficient buying and selling of some farm products such as wheat, corn, cotton, and soybeans. Commodity exchanges are trading centers in the major cities where farmers' cooperatives, merchants, and processors buy and sell large amounts of these basic commodities. At these commodity exchanges, also, traders deal in what are called "futures," that is, they buy and sell on the basis of opinion about prices for these commodities in the future. The Commodity Exchange Authority supervises trading in these "futures" to try to make sure that it is fair and that there is no manipulation of prices.

Government as a Lender

To produce efficiently, most farmers need low-cost credit. Certain government programs of loans for farmers have become part of the entire effort to assist the farmers.



Farm machines cost money. A young southern farmer talks with a Government credit supervisor about farm problems.

N-15419

The *Farmers Home Administration*, whose part in conservation you have seen, is responsible for some of this aid. This agency lends money to farmers to buy, improve, and operate their farms, and, in emergencies like droughts, to help them continue farming. It may make loans only if private banks or other lenders cannot meet the needs of farm families.

The *Farm Credit Administration* is outside the Department of Agriculture. It is responsible to the Farm Credit Board, which is appointed by the President. The Farm Credit Administration supervises a nationwide system of lending associations that are operated cooperatively by farmers themselves. These associations lend money to

farmers who want to buy land, pay off other debts, or finance the production of crops or livestock. They also lend to farmer cooperatives.

To give farmers the benefits of electricity and telephones, the *Rural Electrification Administration* in the Department of Agriculture makes loans to local companies and cooperatives and, in the case of loans for electrification, to public authorities. These loans, which have to be paid back within 35 years, finance the construction of electric power or telephone systems to serve rural areas.

Insurance, like inexpensive loan funds, is important in the good financial management of the modern farm. Many farmers have some kind of insurance to protect their investment in case their buildings catch fire or are damaged by wind.

The *Federal Crop Insurance Corporation* in the Department of Agriculture offers to insure the farmer's investment in his crop against loss from natural hazards like drought, disease, and insects. Farmers buy insurance from the Corporation, and are paid a sum of money by it in proportion to their loss if one of these natural disasters ruins all or part of their crop. In early 1955, more than 800 counties in 41 States had a crop insurance program.

An Effort To Steady Prices

One of the programs to help with the problem of falling farm prices is called "price support." This is how it works: Using an economic formula, the Federal Government sets a certain price, called a "support price," on sev-

eral major farm crops, including corn, wheat, and cotton. The Government offers to buy these crops from the farmer or lend him money on them at this price.

If he signs an agreement, the *Commodity Credit Corporation* of the Department of Agriculture buys his crop on a certain date at the support price. If he pledges the crop for a loan, he may pay the loan off when it comes due; or if he desires, the Corporation will take full rights to the crop instead of a repayment of the loan.

Since the Federal Government is willing to buy or hold as security for loans the crops that are eligible under the program, their price cannot fall too far. For if prices begin to fall, farmers take out loans or sell their crops to the Government.

To get this support price when supplies of certain crops are large, farmers must not plant more than a certain acreage of them. This is to try to prevent a supply of food or fiber that is too large to be sold at home or in foreign countries.

Some farm products, like dairy foods, wool, and mohair, are covered by other programs to support their prices.

The *Commodity Stabilization Service* in the Department of Agriculture helps the Commodity Credit Corporation carry out price support programs. The Stabilization Service stores farm products the Government acquires under the program, disposes of them in various ways, and directs that part of the program to limit the planting of some crops.

Farmers themselves help manage the programs of the Commodity Stabilization Service and some of the other

programs we have described. Farmers elect their neighbors to serve on the local committees that direct conservation, price support, and other programs in their counties. In each State, there are three kinds of committees: Community, county, and State. The Secretary of Agriculture appoints the State committees, and farmers elect those in the communities and counties.

Soil Bank Now for Future Needs

You may have heard about the Soil Bank. It is a Government program to help farmers reduce surpluses of food, fiber, and tobacco and protect the soil and other resources on their farms. Many of the agencies we described have a part in administering this important program.

What does the term "Soil Bank" mean? Everyone knows what a bank is—a place where people can deposit money until they need it. The same principle applies to the Soil Bank. The Department of Agriculture is asking some farmers to put land aside and not harvest any crop from it. And the Department is asking all farmers to put land aside and plant grass or trees on it for long-term conservation. In future years, when our growing population needs larger amounts of food and fiber, much of this land will be used again to produce farm products. You see, the land is put aside—put in the Bank—until it is needed again.

Since farmers may not harvest crops from land they place in the Soil Bank, they cannot earn money from this

land. So they will receive Government payments while they take part in the program.

Secretary of Agriculture

These services, corporations, and administrations, which make up the United States Department of Agriculture, are headed by directors and administrators responsible for their work to four assistant secretaries and a director. At the head of the whole Department are the Secretary of Agriculture and the Under Secretary. The Secretary is responsible to the President for his work.

Agencies in State governments that deal with agriculture have fewer offices. The heads of these agencies report to the State governors, not to the President.

Because most farmers need aid in meeting the big technical and economic problems they face, State legislatures and the national Congress have set up the many government offices we have described.

CHANGES IN FARMING

Tables showing how much our agriculture has changed.

1. Fewer Farms

	1954	1939
Number of farms-----	4,782,000	6,097,000
People on farms-----	22,000,000	30,500,000

2. Bigger Farms

Size of farms in the United States today compared with 15 years ago.

Acres	1954	1939
Under 10-----	484,000	506,000
10-29-----	713,000	1,013,000
30-49-----	500,000	767,000
50-99-----	864,000	1,291,000
100-179-----	953,000	1,310,000
180-259-----	464,000	486,000
260-499-----	482,000	459,000
500-999-----	192,000	164,000
1,000 and over-----	130,000	101,000

3. Higher Yields

Yield from an acre of cropland, yearly average for 3 years.

	1952-54	1939-41
Corn-----	39 (bu.)	30 (bu.)
Wheat-----	18 (bu.)	15 (bu.)
Oats-----	33 (bu.)	32 (bu.)
Barley-----	28 (bu.)	23 (bu.)
Potatoes-----	250 (bu.)	129 (bu.)
Soybeans-----	20 (bu.)	18 (bu.)
Cotton-----	314 (lb.)	241 (lb.)
Rice-----	2,455 (lb.)	2,173 (lb.)
Tobacco-----	1,290 (lb.)	981 (lb.)

4. More Efficient Dairy Farming

	1954	1935-39
Average production of milk per cow----	5,512 (lb.)	4,403 (lb.)

5. More Food and Fiber

Farm production of certain crops and animal products
1954 and 1940.

(Multiply these numbers by 1,000 to get the correct amount, for
example, 2,965,000×1,000=2,965,000,000)

Product	1954	1940
All corn.....	2,965,000 (bu.)	2,457,000
All wheat.....	970,000 (bu.)	814,000
Irish potatoes.....	355,000 (bu.)	377,000
Soybeans (for beans).....	343,000 (bu.)	78,000
Cotton lint.....	13,570 (bales)	12,570
Tobacco.....	2,200,000 (lb.)	1,460,000
Beef.....	12,991,000 (lb.)	7,175,000
Pork.....	9,952,000 (lb.)	10,000,000
Lamb and mutton.....	734,000 (lb.)	876,000
Chicken.....	3,956,000 (lb.)	1,885,000
Milk.....	121,219,000 (lb.)	109,412,000
Eggs.....	65,375,000 (No.)	39,700,000

6. Farm Ownership Up

Percentage of farmers who own the farms they work.

	1954	1940
Full owners.....	57.2	50.6
Part owners.....	17.9	10.1
Managers.....	.4	.6
Renters.....	24.5	38.7

7. Fewer Farm Workers

Employment on farms.

	1954	1940
Workers who are members of the farm family.....	6,521,000	8,300,000
Hired workers.....	1,930,000	2,679,000
Total.....	8,451,000	10,979,000

8. More Mechanical and Electrical Power

Number of work animals and machines on farms.

	1954	1939
Horses and mules.....	4,171,000	14,478,000
Tractors.....	4,600,000	1,545,000
Motor trucks.....	2,650,000	1,047,000
Automobiles.....	4,450,000	4,144,000
Percentage of farms getting electric service.....	93.4	30.4

FURTHER READING

Books, pamphlets, and charts published by the U. S. Department of Agriculture are valuable aids in the study of American agriculture. Some of these publications are found in local libraries. The booklet, *Popular Publications for the Farmer and Homemaker*, contains a list of typical USDA publications for farmers and the general public. You can get this publication by writing Office of Information, U. S. Department of Agriculture, Washington 25, D. C. It is free.

Issued November 1956

U. S. GOVERNMENT PRINTING OFFICE: 1956

For sale by the Superintendent of Documents, U. S. Government Printing Office, Washington 25, D. C. - Price 15 cents

